Program:	LAB.NT.CC Nanoscience Technology CC (38 credits)		Division: STEM
Student:		ID#:	Catalog Year: 2024-2025

Developmental Education Courses (if required)								
☐	EAP-018	Intensive Academic English	☐	MAT-020	Basics of College Math	☐	COM-017/019	Foundational Reading/Writing
☐	EAP-020/040	EAP Reading I and Writing I	☐	MAT-03_		☐	COM-097	Academic Literacy I
☐	EAP-050/060	EAP Writing II and Reading II				☐	COM-098	Academic Literacy II

SEMESTER BY SEMESTER MAP FOR FULL-TIME STUDENTS

Courses are listed in preferred order of completion. Plans may be modified by adding more semesters.

SEMESTER I – Fall (10 credits)					
	Course#	**Course Name**	**Cr.**	**Pre-requisites/ Co-requisites**	**Semesters**
M	MAT-165	Trigonometry	3	MAT-160	All
M	IFT-110*	Microcomputer Application	3	MAT 020; COM 098 or EAP 060 & EAP 050	All
M	CHE-150	Chemistry I	4	CHE 120 or high school chemistry with a C or better, MAT 110 with a C or better	Fall/Spring

SEMESTER 2 – Spring (11 credits)					
	Course#	**Course Name**	**Cr.**	**Pre-requisites/ Co-requisites**	**Semesters**
M	CHE-155	Chemistry II	4	CHE-150 and MAT-160 or MAT-180	Spring
M	MAT-210	Statistics	3	MAT 030, MAT 032, MAT 034 OR MAT 035 with "C" or better COM 098 OR EAP 060 and EAP 050	All & OL
M	PHY-150	Applied Physics	4	COM-098 or EAP-050 and EAP-060 ; MAT 110	Fall/Spring

SEMESTER 3 – Fall (9 credits)					
	Course#	**Course Name**	**Cr.**	**Pre-requisites/ Co-requisites**	**Semesters**
M	NSC-180	Electronics for Nanoscience	4	CHE 150, MAT 165, PHY 150 or PHY 245	Spring
M	NSC-200	Nanofabrication Seminar	1	Approval of Nanoscience Advisor	Varies
M	BIO-150	Biology I	4	MAT-030, COM-098 or EAP-050 and EAP-060 and CHE-120 or high school Chemistry with a C or better	All

SPRING SEMESTER 4 – Spring (18 credits) THESE COURSES ARE TAKEN AT PENN STATE MAIN CAMPUS					
	Course#	**Course Name**	**Cr.**	**Pre-requisites/ Co-requisites**	**Semesters**
M	NSC-211	Materials, Safety & Equipment Overview for Nanofabrication	3	Approval of Nanoscience Advisor	
M	NSC-212	Basic Nanofabrication Process	3	Approval of Nanoscience Advisor	
M	NSC-213	Thin Films in Nanofabrication	3	Approval of Nanoscience Advisor	
M	NSC-214	Lithography for Nanofabrication	3	Approval of Nanoscience Advisor	
M	NSC-215	Materials Modification in Nanofabrication	3	Approval of Nanoscience Advisor	
M	NSC-216	Characterization, Packaging and Testing of Nanofabricated Structures	3	Approval of Nanoscience Advisor	

This program, in conjunction with the Pennsylvania State University Nanofabrication Manufacturing Technology Program, prepares students for careers as skilled technicians for manufacturers utilizing nanofabrication technology. This discipline includes biotechnology, automation, miniaturization, integration, optics, robotics and information systems. This program is designed for students who have already earned a college degree and wish to expand their education.

*Sections of these courses offered in the Honors Program, check https://www.racc.edu/academics/honors-program for details. **Online (OL)** may not be offered every semester. Please check the schedule.

Date created: September 2019	Updated: June 2024	All = Fall/Spring/Summer; OL = Online M = Major; E = Elective; G = GenEd